

**Notice of Allowability**

Application No.

09/874,325

Examiner

Alexander Markoff

Applicant(s)

TAMURA, TAKAHIRO

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to papers filed on 6/6/2001.
2. ☒ The allowed claim(s) is/are 12-16, 18 and 19.
3. ☒ The drawings filed on 06 June 2001 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☒ Certified copies of the priority documents have been received in Application No. 08/654,873.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 6/6/01
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_.

Alexander Markoff  
Primary Examiner  
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### REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

The claims recite a protector having the same electrical properties as the electrical properties of the deposited film, which should be removed, and a plasma cleaning method utilizing the protector.

The requirement to have the same electrical properties (without specifying which property is meant) means that all and each electrical property of the protector must be the same as the property of the deposited film, which should be removed.

The term "same" according to the dictionary means:

1. Being the very one; identical: *the same boat we rented before*.
2. Similar in kind, quality, quantity, or degree.
3. Conforming in every detail: *according to the same rules as before*.
4. Being the one previously mentioned or indicated; aforesaid.<sup>1</sup>

It is well-known in the art and that different materials having the same chemical composition have different electrical properties.

For example, the electrical properties of quartz (crystalline form of silicon oxide) are different from the properties of amorphous silicon oxide and the electrical properties of a natural silicon oxide are differed from the properties of a deposited silicon oxide.

Moreover, the electrical properties of the same material deposited by different deposition methods are different.

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<sup>1</sup> The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

Further, the electrical properties of a material deposited by the same method would be different depending from the parameters of the process.

Furthermore, deposited films can comprise different dopants, which influence electrical properties.

Please, see prosecution of the parent applications SN 08/654,873 and SN 09374,112 for the detailed discussion. The following handbooks, which were cited during the discussion, are cited again to support the examiner's position:

Sze (Semiconductor Devices, Physics and Technology, pages 341-380, especially page 358), Pierson (Handbook of Chemical Vapor Deposition (CVD), pages 231-234 and 278-282) and Sherman (Chemical Vapor Deposition for Microelectronics, pages 66-77 and 131-136, especially pages 134 and 135).

The prior art fails to teach or suggest a protector made by the exactly the same method (with maintaining the same parameters of the method) as the deposits, which should be removed.

None of the prior art documents teach measuring all and every electrical property of the deposited film to be removed and providing a protector with electrical properties matching the measured properties.

The prior art (Frieser et al, Fujimaki and others) only teaches the protectors made from silicon oxide, silica glass, quartz, etc. It is noted that none of such conventional protectors or any other protector produced prior to forming deposits and measuring their electrical properties would meet the claimed limitations.

Thereby, the examiner takes the position that the prior art fails to teach or suggest the protector as claimed and the plasma cleaning method utilizing the protector.

The examiner would like to add the following comment:

It is noted that the instant claims except for the newly added claims 18 and 19 were examined and indicated allowable for the reasons indicated above during prosecution of the parent application SN 09/374,112.

It is noted that in an after final response in the prosecution of the parent application SN 09/374,112 the applicants argued that the claims reciting "the same electrical properties" are intended to provide a more general scope of the coverage than requiring the all and each electrical property of the protector be the same as the property of the deposited film, which should be removed.

However, the applicants have not specified what they meant under "a more general scope of the coverage".

The applicants neither specified why they considered the term "the same electrical properties" not requiring the all electrical properties be the same, nor specified which electrical properties should be excluded from "the same electrical properties".

The claims were canceled that time in response to the restriction requirement.

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The applicants introduced the claims in the instant application, which is a divisional of SN 09/374,112.

The applicants have neither changed the used term, nor specified "a more general scope of the coverage".

It is noted that specification pages 18 and 23 recites that in preferred embodiment the protector has the same electrical properties as the deposited film to be removed. The claims are also require a protector made from a material having electrical properties, which are the same as the deposited film to be removed.

Due to all of the above, the scope of the claims is interpreted according to the specification and the conventional meaning of the used term.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexander Markoff whose telephone number is 571-272-1304. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy P Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Alexander Markoff  
Primary Examiner  
Art Unit 1746

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**ALEXANDER MARKOFF**  
**PRIMARY EXAMINER**